

Report: #28

Activity: BVO LHC

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LS2



LSS2

Vacuum Sector	Intervention Description	Intervention Status	Layout Database	SCADA	NEXT
A6L2.B & R	Dismounted for the LIU TI2 (20m of machine) Exchange VMSIO RF insert	Finished	Updated	-	-
E5L2.B & R	Dismount and recondition for MKI 2B exchange	Not started	-	-	Waiting MKI surface tests in wk. 28-29
C5L2.B & R	Dismount and recondition for MKI 2B exchange		-	-	
A4L2.X & B4L2.X (New C4L2.X)	Modify the layout for new TDIS. Waiting final installation	Stand-by	Updated	Done	Wk.33 (10.08-14.08) Alignment

MKI Final Jackets bakeout:

- A leak in the 10-7 mbarl/s exactly on the same flange where we had a leak after the first oven bakeout open while cooling down;
- ABT confirmed in the past that the leak was fixed, but actually (what we understood) is that the leak after the HV test was closed so they have decided to do not take any action;
- Before the bakeout no leak was detected in this location

ACTION: We have decided to remove the leaking transition under N2 flux and change it with a blank flange. A new shorted bakeout should start on Monday (03.08)

LSS4

Vacuum Sector	Intervention Description	Intervention Status	Layout Database	SCADA	Next
New F5 + E5L4.R	Sectorization for BWS.5L4.B2	Standby	Updated	Done	Postponed in January 2021
D5L4.R	BSRT mirror exchange BVO consolidation	Standby	-	-	
New C5 + B5L4.B	Sectorization for BGC	Standby	Updated	-	BGC acceptance tests done and validated
D5R4.B	- BSRT mirror exchange - BVO consolidation	Done	-	-	NEG Activation wk.34
New E5 + F5R4.B	Sectorization for BWS.5R4.B1	Done	Updated	Done	NEG Activation wk.34

LSS7

Vacuum Sector	Intervention Description	Intervention Status	Layout Database	SCADA	Next
A6L7.B	TCP.P.C6L7.B1 and TCP.P.D6L7.B1	Not started	-	-	Waiting TCSPM
B5L7.B&R	- MQWA replaced by TCAPM - TCSPM.6L7.B2	MQWA & TCAPM done	Done	-	Waiting TCSPM
A5L7.R	TCSPM.E5L7.B2	Not started	Done	-	Waiting TCSPM
A4L7.B	- TCSPM.D4L7.B1 + 2 new VPIAN / VPNCA	Not started	Done	Done	Waiting TCSPM
IP7.B&R	- TCSPM.B4L7.B1 + TCSPM.B4R7.B2 + 4 new VPIAN / VPNCA	Preparation and upgrade done	-	-	Install 2 x TCSPM next week
A4R7.R	- TCSPM.D4R7.B2	In progress	Done	-	Waiting TCSPM
A5R7.B	- TCSPM.E5R7.B1 + 1 new VPIAN / VPNCA	Not started	Done	Done	Waiting TCSPM
B5R7.B&R	- MQWA replaced by TCAPM - TCSPM.6R7.B1	MQWA & TCAPM done	Done	-	Waiting TCSPM
A6R7.R	TCP.P.C6R7.B2 and TCP.P.D6R7.B2	Done	-	-	-

LSS8

Vacuum Sector	Due Date	Intervention Description	Intervention Status	Layout Database	SCADA	Next
A5L8.R	Na	<ul style="list-style-type: none">- Add a BPM on the internal line- VPS test with B. Henrist	Final alignment and pump down this week	Done	-	Bakeout managed by VSM
A4R8.X & B4R8.X (New C4R8.X)	Na	Modify the layout for new TDIS. Waiting final installation	Modify the layout for new TDIS. Waiting final installation	Updated	Done	Waiting second TDIS bakeout in October

ARC

overview

wk.32

ARC	Status	BVO Cons	Final Leak detection	Next activity	Left	Cool down (300-80K)
12	Pump down	Done	Done	TCLD bake-out DONE	-	Wk.47-51
23	Pump down		Done	TCLD Installation DONE Bakeout (wk.33- up to wk.36)	-	Wk.47-51
34	Pump down		Done	-	-	Wk.45-49
45	Pump down		Done	-	-	Wk.40-44
56	Pump down		Done	-	-	Wk.47-51
67	Pump down		Done	Venting for 11T-TCLD activities (?)	<ul style="list-style-type: none"> LD new PIMs TCLD inst. 	Wk.19-23 (2021)
78	Pump down		Foreseen - LD pumping ports (20% left)	-	-	Wk.43-47
81	Pump down		Done	-	-	Wk.38-42

MKB TD62

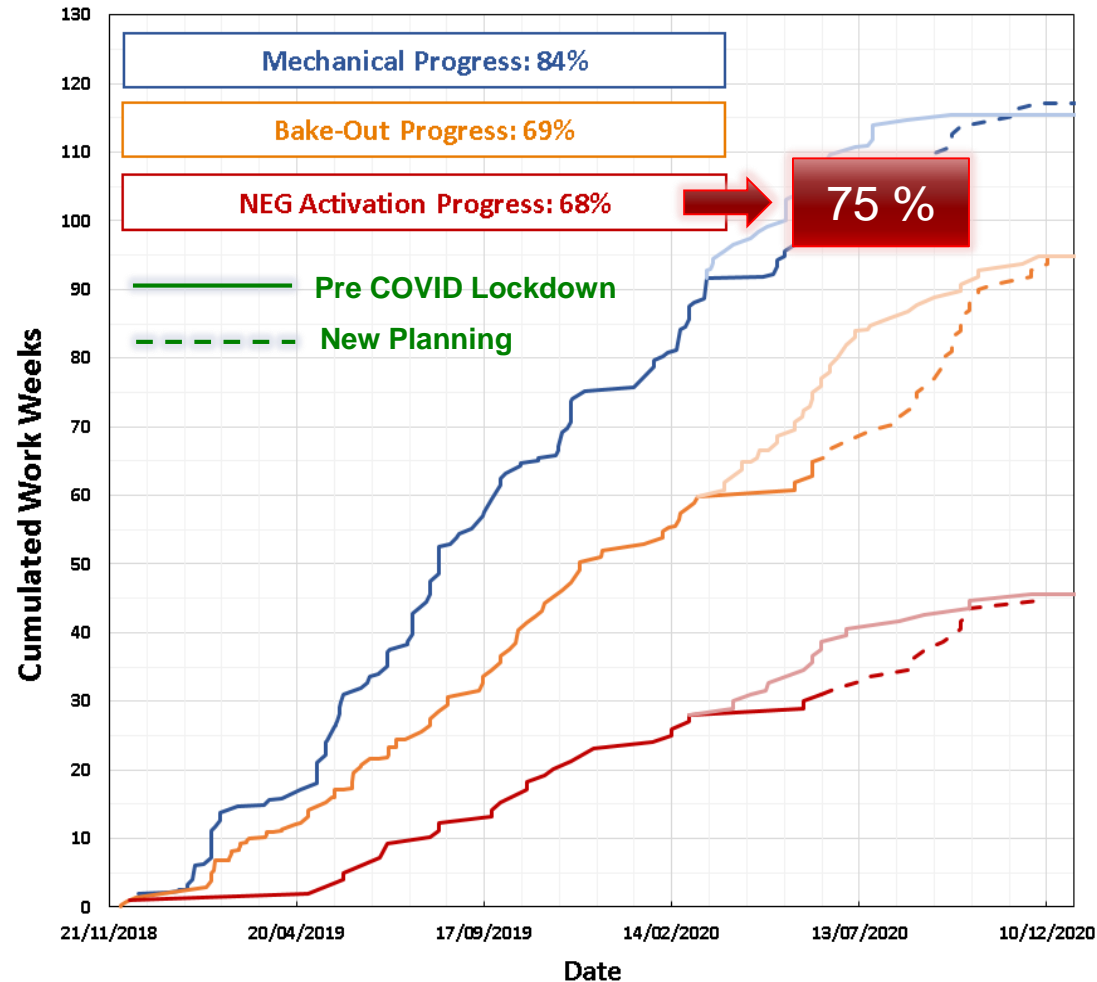
VSC Activities:

- All the ion pumps were exchanged as a preventive measure due to high pressure level and not being able to decrease properly to the 10^{-8} mbar range.
- It was noticed that the ion pumps showed a very low pumping speed and a very high ultima pressure once tested on their own.

ABT Activities

- ABT during our ion pumps exchange decided to have visual inspection of the tanks.
- In one tank some signs of electrical arc was visible and also some dust was found on the bottom of the tank.
- All the activities are now in standby waiting a decision to possibly change this tank.

Dashboard & resources availability



Mechanical and bakeout installation works is advancing well, and not critical problems now are encountered for both the LSS and the Arcs activities

1. Support for the inner triplet's alignment campaign managed by magnets group;
2. Deep analysis was carried out in the IT8L with the support of the insulation vacuum and the cryo to validate the leak tightness after a sudden not controlled movement of the Q1 and Q2;
3. Bakeout materials and cabling rerouting due to the magnet's radiation shields activities ongoing,. All the LSS3 was done. Some activities ongoing in LSS7. Some other points are in standby and wait the WDP to be finalized in September
4. TI2 (TED to the LHC): Alignment completed, and mechanical vacuum activities are done. The sectors is pumping down, and it is leak tight. The bakeout of the new collimators will start soon.

1. Full consolidation of the bakeout equipment's in the LSS4 on the neighbor's vacuum sectors of the RF cavities.
2. X-rays of warm modules: More than 55 vacuum sectors at the end of the LS2 will be tested. With an average of 4 module per sector we are ending up with more than 250 modules: More precise data will be presented on a dedicated reports at the end of the LS2.
3. A campaign to understand some strange pressure signal behavior is ongoing to properly discern the effects of TPG controllers, TPG new cards, grounding, cabling, shielding, etc: In collaboration with ICM.

Xrays of wmar modules

Thank you !



LS2

